

# Goals of BDS WG

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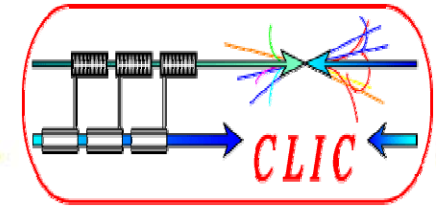
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CLIC 08 Workshop

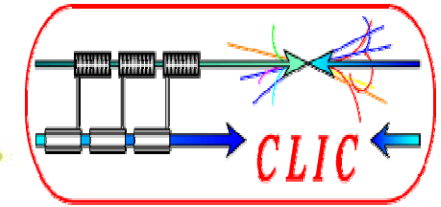
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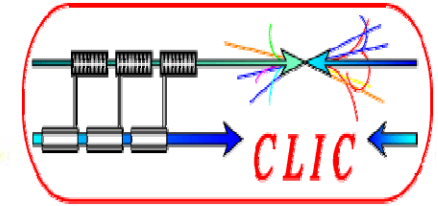
## Goals (very briefly)



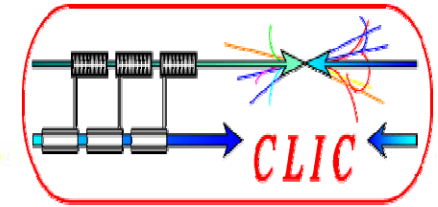
- Overview the status of design
- Discuss what subsystems represent specific challenges and may need more attention for design, optimization, or experimental verification
  - **The initial list of system that may require more attention:**
    - Extraction system
    - Physics instrumentation (polarimetry, E-spectrometry)
    - Beam dump system
    - Crab cavity system



- Discuss and the collimation system design
  - (as the one taking biggest part of BDS length)
  - **Discuss design and criteria**
    - beam damage criteria
    - order of collimation (E, then beta)
    - etc
  - **Discuss new effects and possible alternative approaches to collimation**



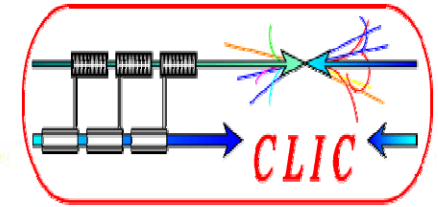
- Discuss MDI related aspects of the design
  - **Final Doublet**
    - Permanent magnet
    - Superconducting
  - **Masks**
  - **Backgrounds**
- Discuss the BDS and MDI design versus the stability criteria
  - **In particular, discuss doubling of  $L^*$  (to  $\sim 8\text{m}$ ) to ease achievement of FD stability requirements**



- Discuss what experimental tests are needed and what can be done
  - **at ATF2**
    - smaller beta for CLIC-like FF or even for doubled  $L^*$ ?
    - SC and PM FDs
  - **at proposed FACET**
    - collimation related beam damage studies
  - **at other facilities**



## WG: possible outcomes



- Directions of further design efforts
- Ideas for possible design optimization
- Ideas on experimental tests needed
- Better plans of work with Detector colleagues
- Better picture of who will do what and when
- Possibly, new collaborators
- Enhanced CLIC-ILC collaboration